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Subject: UNIVAR Facility - Proposed RCRA Remedy Selection
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Howard:

On behalf of the Department of Environmental Quality (DEQ), I reviewed the document titled: Statement of Basis Proposed RCRA Remedy Section, UNIVAR USA Inc., dated August 2006. I briefly worked on the project when the draft Corrective Measures Study (CMS) was issued. DEQ did not complete a detailed review of the final CMS Report issued in May 2006 in preparation of these comments. The focus of my review was threefold. First, is the proposed remedy protective as defined by Oregon Cleanup Statutes, second, are implementation risks acceptable under the same criteria and third, does the site characterization and proposed remedy meet the objectives of the December 2005 EPA/DEQ Portland Harbor Joint Source Control Strategy (JSCS).

1. **Development of cleanup levels.** The proposed cleanup levels for the site were developed to achieve an acceptable risk level of 1×10^{-6} for individual carcinogens and 1×10^{-5} cumulative cancer risk, and a hazard index of one for non-carcinogens. As a check on the proposed cleanup levels for soil and groundwater presented in Tables 2 and 3 of the Statement of Basis, I compared the cleanup levels to DEQ risk-based concentrations contained in DEQ's Risk-Based Decision Making for Petroleum Contaminated Sites, which were also developed using the Johnson and Ettinger model (JEM). Proposed cleanup levels for soil are in general at least one order in magnitude lower than the DEQ RBCs for the vapor or direct contact exposure pathways. The proposed soil cleanup levels are therefore protective under Oregon requirements. For groundwater, the cleanup levels for the vapor pathway are consistently at least 1 order in magnitude lower than the DEQ groundwater vapor intrusion RBCs and are therefore protective, although DEQ questions why the cleanup levels would differ between on-site and off-site for the same exposure pathway. The proposed groundwater cleanup levels for off-site trench workers, however, are at least 1 order in magnitude higher than the DEQ RBCs for this pathway. DEQ concludes, therefore, that the proposed remedy cleanup levels for trench workers are not protective to Oregon requirements. In addition, DEQ believes the cleanup levels should apply for both on-site and off-site trench workers. Not setting requirements for on-site trenching could be misinterpreted into the future to mean health and safety controls are not required.

2. **Detailed Evaluation of Corrective Action Alternatives.** The Statement of Basis does not provide a discussion of the results of the detailed evaluation to support the proposed corrective action. Under Oregon Cleanup Rules (see OAR 340-122-090), DEQ remedy selection also includes an evaluation of protectiveness in addition to the feasibility criterion noted in the Statement of Basis. As noted above, the proposed remedy does not appear to be protective to trench workers. In addition, DEQ also considers implementation risk in the evaluation of protectiveness. The current interim corrective actions (ICAs) have involved treatment of off-gas from the groundwater and SVE systems. DEQ is aware that the off-gas treatment system was marginally effective in treating vinyl chloride, which contained significant concentrations in the treated air emissions. The proposed remedy expands the treatment program and will presumably increase VOC emissions at the facility. The protectiveness of the remedy, therefore, is a significant concern of DEQ.

3. Portland Harbor Source Control Determination. In addition, DEQ has assumed certain responsibilities in ensuring source control measures are implemented for upland facilities within the Portland Harbor NPL site project boundaries. The UNIVAR site is located within the potential boundaries of the site where DEQ requires a source control determination for upland sites. The scope of the RCRA work conducted under the consent order discussed in the Statement of Basis does not indicate whether source control evaluations were performed under the oversight of EPA's RCRA Program to support the requirements of the EPA Superfund Program. My communications with DEQ's Portland Harbor project staff indicate a source control evaluation has not been conducted for the site. Since EPA is lead agency for the UNIVAR site, DEQ is deferring this task to EPA to determine what additional remedial measures beyond the proposed site remedy may be required for the site in accordance with the JSCS for Portland Harbor.

Site characterization does not appear to be sufficient to determine:

1. That hazardous substances potentially released at the site are or are not available for transport to the Willamette River via the stormwater system.
2. That hazardous substances released at the site have not accumulated in the storm water system (e.g., pipes) and are not an ongoing source of contaminants to the Willamette River.
3. That groundwater contaminant plumes are not being intercepted by the storm water system or other subsurface improvements and preferentially transported to the Willamette River.
4. That groundwater contaminant plumes are not or will not in the future reach the Willamette River. The Corrective Measures Study notes that the nature and distribution of contaminants in the deep aquifer is the subject of an ongoing supplemental investigation.

It is important for EPA to prioritize the necessary site characterization, evaluation and potential source control remedial measures such that they support the Portland Harbor project schedule.

As a final point, DEQ would like feedback from EPA on whether EPA plans on transferring this facility to the State for final remedy implementation oversight. As a condition of the transfer, a clean-up agreement between the facility and DEQ will need to be in place to address the Department's oversight costs associated with remedy implementation and O&M work. EPA should play a role in encouraging Univar to join the Department's cleanup program as part of implementing the final remedy. Otherwise EPA should plan on keeping this as an active site under their supervision.

I look forward to your responses to the DEQ comments.
Sincerely,

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